- 58. (New) The wafer processor of claim 56 wherein the upper portion of the processor head extends outwardly over the upper edge of the processing bowl.
- 59. (New) The wafer processor of claim 56 wherein the motor is carried by the upper portion of the processor head.
- 60. (New) The wafer processor of claim 56 wherein the motor is enclosed within the upper portion of the processor head.
- 61. (New) The wafer processor of claim 54 wherein the processor head comprises an annular gas-receiving recess having a height above a height of a front surface of any wafer carried by the wafer support.
- 62. (New) The wafer processor of claim 54 wherein the wafer support comprises a wafer support plate.
- 63. (New) The wafer processor of claim 62 wherein the processor head has an upper portion which extends outwardly beyond the wafer support plate.
- 64. (New) The wafer processor of claim 54 wherein the wafer support comprises an acid-resistant material.
- 65. (New) The wafer processor of claim 64 wherein the acid-resistant material comprises polyvinylidene fluoride.
- 66. (New) The wafer processor of claim 54 wherein the wafer support comprises a wafer support plate having a downwardly directed front face and an upwardly directed back face.
- 67. (New) The wafer processor of claim 66 wherein the wafer support plate carries a plurality of fingers adapted to engage a peripheral edge of a wafer.
- 68. (New) The wafer processor of claim 67 wherein the fingers peripherally support the wafer.
- 69. (New) A wafer processor for processing a wafer such as a semiconductor wafer, a magnetic disk, or an optical disk, comprising:
  - a processing bowl having an upper edge; and
  - a processor head comprising an upper portion housing a motor, a rotatable wafer support carried below the upper portion, a vertical shaft coupling the motor to the wafer support, and a mount carried by the upper



portion, the wafer support being adapted to overlay and peripherally support a single wafer at a height below the upper edge of the processing bowl, the mount being adapted to facilitate lifting of the processor head with respect to the processing bowl.

- 70. (New) The wafer processor of claim 69 wherein the wafer holder extends downwardly from the upper portion of the processor head to position a wafer below the upper portion of the processor head.
- 71. (New) The wafer processor of claim 69 wherein the upper portion of the processor head extends outwardly of the periphery of the wafer.
- 72. (New) The wafer processor of claim 69 wherein the upper portion of the processor head extends outwardly over the upper edge of the processing bowl.
- 73. (New) The wafer processor of claim 69 wherein the motor is enclosed within the upper portion of the processor head.
- 74. (New) The wafer processor of claim 69 wherein the processor head comprises an annular gas-receiving recess having a height above a height of a front surface of any wafer carried by the wafer support.
- 75. (New) The wafer processor of claim 69 wherein the wafer support comprises a wafer support plate.
- 76. (New) The wafer processor of claim 69 wherein the wafer support comprises an acid-resistant material.
- 77. (New) The wafer processor of claim 76 wherein the acid-resistant material comprises polyvinylidene fluoride.
- 78. (New) The wafer processor of claim 69 wherein the wafer support comprises a wafer support plate having a downwardly directed front face and an upwardly directed back face.
- 79. (New) The wafer processor of claim 78 wherein the wafer support carries a plurality of fingers adapted to engage a peripheral edge of a wafer.
- 80. (New) The wafer processor of claim 79 wherein the fingers peripherally support the wafer.





- 81. (New) A wafer processor for processing a wafer such as a semiconductor wafer, a magnetic disk, or an optical disk, comprising:
  - a processing bowl having an upper edge; and
  - a processor head comprising an upper portion, a motor enclosed within the upper portion, and a wafer holder extending downwardly from the upper portion, the motor being coupled to the wafer holder by a downwardly extending shaft, the wafer holder being adapted to overlay and peripherally support a single wafer at a height below the upper edge of the processing bowl with the upper portion of the processor head extending outwardly of the periphery of the wafer.
- 82. (New) The wafer processor of claim 81 wherein the processor head includes a mount adapted to facilitate lifting of the processor head.
- 83. (New) The wafer processor of claim 81 wherein the upper portion of the processor head extends outwardly over the upper edge of the processing bowl.
- 84. (New) The wafer processor of claim 81 wherein the processor head comprises an annular gas-receiving recess having a height above a height of a front surface of any wafer carried by the wafer support.
- 85. (New) The wafer processor of claim 81 wherein the wafer support comprises a wafer support plate.
- 86. (New) The wafer processor of claim 85 wherein the processor head has an upper portion which extends outwardly beyond the wafer support plate.
- 87. (New) The wafer processor of claim 81 wherein the wafer support comprises an acid-resistant material.
- 88. (New) The wafer processor of claim 87 wherein the acid-resistant material comprises polyvinylidene fluoride.
- 89. (New) The wafer processor of claim 81 wherein the wafer support comprises a wafer support plate having a downwardly directed front face and an upwardly directed back face.
- 90. (New) The wafer processor of claim 89 wherein the wafer support plate carries a plurality of fingers adapted to engage a peripheral edge of a wafer.



- 91. (New) The wafer processor of claim 90 wherein the fingers peripherally support the wafer.
- 92. (New) A wafer processor for processing a wafer such as a semiconductor wafer, a magnetic disk, or an optical disk, comprising:
  - a processing bowl having an upper edge; and
  - a processor head comprising:
    - a motor carried in an upper housing;
    - a downwardly extending shaft coupled to the motor
    - a wafer holder coupled to and extending downwardly from the shaft, the wafer holder being adapted to overlay and peripherally support a single wafer for rotation by the motor at a height below the upper edge of the processing bowl.
- 93. (New) The wafer processor of claim 92 wherein the processor head includes a mount adapted to facilitate lifting of the processor head.
- 94. (New) The wafer processor of claim 92 wherein the upper portion of the processor head extends outwardly over the upper edge of the processing bowl.
- 95. (New) The wafer processor of claim 92 wherein the processor head comprises an annular gas-receiving recess having a height above a height of a front surface of any wafer carried by the wafer support.
- 96. (New) The wafer processor of claim 92 wherein the wafer support comprises a wafer support plate.
- 97. (New) The wafer processor of claim 96 wherein the processor head has an upper portion which extends outwardly beyond the wafer support plate.
- 98. (New) The wafer processor of claim 92 wherein the wafer support comprises an acid-resistant material.
- 99. (New) The wafer processor of claim 98 wherein the acid-resistant material comprises polyvinylidene fluoride.
- 100. (New) The wafer processor of claim 92 wherein the wafer support comprises a wafer support plate having a downwardly directed front face and an upwardly directed back face.



- 101. (New) The wafer processor of claim 100 wherein the wafer support plate carries a plurality of fingers adapted to engage a peripheral edge of a wafer.
- 102. (New) The wafer processor of claim 101 wherein the fingers peripherally support the wafer.
- 103. (New) A method of handling a wafer, comprising:

lifting the processing head.

providing a wafer processor comprising a processing bowl and a processor head, the processing head including a wafer support; releasably engaging a periphery of a wafer with the wafer support; positioning the wafer at a height below an upper edge of the processing bowl with the wafer support extending downwardly from a location positioned above the upper edge of the processing bowl, the processing head extending outwardly of the periphery of the wafer; rotating the wafer at the height below the upper edge of the processing bowl; and

